

WHAT IS CLAIMED IS:

[0121] 1. A method of synchronizing a closing of a network auction, comprising:

determining a message travel time between a participant processor and an auction processor;

establishing a sponsor auction time at the auction processor;

calculating a bidder auction time by adding the message travel time to the auction processor time;

setting a participant processor clock to the bidder auction time; and

accepting a bid at the auction processor only if the bid was sent prior to a predetermined end of bidding time.

[0122] 2. The method of claim 1, wherein said establishing a bidder auction time occurs at the auction processor.

[0123] 3. The method of claim 1, wherein the network includes at least two networked computers participating in the auction.

[0124] 4. The method of claim 1, wherein said determining a message travel time includes:

sending an initiating message from an auction processor to a participant processor;

receiving a return message at the auction processor from the participant processor;

establishing a round-trip elapsed travel time equal to a difference between a time when the initiating message was sent and a time when the return message was received; and

calculating the message travel time by halving the round-trip travel time.

[0125] 5. The method of claim 1, wherein said determining a message travel time includes:

receiving a time stamped message at an auction processor from a participant processor; and

calculating the message travel time by subtracting a time stamped on the received message from a current time at the auction processor.

[0126] 6. The method of claim 5, further comprising sending an initiating message from an auction processor to a participant processor.

[0127] 7. The method of claim 1, wherein permitting the participant processor to submit a bid to the auction processor includes permitting the participant processor to submit a bid only until a predetermined time passes at the auction processor.

[0128] 8. The method of claim 1, wherein permitting the participant processor to submit a bid to the auction processor includes permitting the participant processor to submit a bid only until a predetermined time passes at the participant processor.

[0129] 9. The method of claim 1, wherein accepting a bid at the auction processor includes time stamping the bid at the participant processor, further comprising accepting the bid at the auction processor only if the time stamped is a time prior to the closing time.

[0130] 10. The method of claim 1, wherein accepting a bid at the auction processor includes:

ordering messages sent by the participant processor, wherein the messages include bid messages and end of bidding messages;

sending an ordered end of bidding message from the participant processor to the auction processor; and

not accepting a bid included in a bid message at the auction processor that is ordered subsequent to the end of bidding message.

[0131] 11. The method of claim 10, further comprising sending an end bidding instruction from the auction processor to the participant processor, wherein said ordered end of bidding message is sent in response to the end bidding instruction.

[0132] 12. The method of claim 10, wherein said ordering includes numbering messages such that each message includes a number that is higher than a previous message.

[0133] 13. The method of claim 1, wherein accepting a bid at the auction processor includes:

ordering messages sent by the participant processor, wherein said messages include a bid message and an end of bidding message;

receiving an end of bidding message from the participant processor at the auction processor; and

not accepting a bid at the auction processor after receiving the end of bidding message.

[0134] 14. The method of claim 1, wherein accepting a bid at the auction processor includes:

ordering messages sent by the participant processor, wherein said messages include a bid message and an end of bidding message;

sending a end of bidding message from the auction processor to the participant processor at a time;

waiting a predetermined period of time from the time the end of bidding message was sent; and

not accepting a bid at the auction processor after the predetermined period of time has elapsed.

[0135] 15. The method of claim 1, further comprising updating the participant processor clock to the bidder auction time at intervals.

[0136] 16. The method of claim 15, wherein said intervals are regular.

[0137] 17. The method of claim 1, wherein the bid is received at the auction processor after the end of bidding time.

[0138] 18. The method of claim 1, wherein at least two participant processors are participating in the auction, further comprising ending bidding in the auction after receiving confirmation that each participant processor clock has reached the end of bidding time.

[0139] 19. The method of claim 18, further comprising placing the auction in a pending state and subsequently closing the auction.

[0140] 20. The method of claim 1, wherein at least a first participant processor and a second participant processor are participating in the auction, further comprising accepting a bid from the first participant processor after the second participant processor has reached the end of bidding time.

[0141] 21. The method of claim 20, further comprising reopening the auction after accepting the bid from the first participant processor.

[0142] 22. The method of claim 1, wherein said determining a message travel time includes:

sending an initiating message from an auction processor to a participant processor;

receiving a return message at the auction processor from the participant processor; and

establishing the message travel time by calculating a difference between a time when the initiating message was sent and a time when the return message was received.

[0143] 23. The method of claim 1, wherein the auction is a reverse auction.

[0144] 24. The method of claim 1, wherein the auction is a forward auction.

[0145] 25. The method of claim 1, wherein the participant processor is electronically coupled to the auction processor during the conducting of the auction.

[0146] 26. A method of validating that a bid is placed by a participant processor networked with an auction processor prior to a predetermined end of bidding time, comprising:

setting a time clock at the participant processor to an auction time; and
accepting a bid sent from the participant processor to the auction processor only until the predetermined end of bidding time occurs, according to the participant processor time clock.

[0147] 27. The method of claim 26, further comprising synchronizing a first bidder auction time at the participant processor time clock with an auction time at the auction processor.

[0148] 28. A method of validating that a bid is placed by a participant processor networked with an auction processor prior to a predetermined end of bidding time, comprising:

synchronizing a time clock at the participant processor with a time clock at the auction processor; and

accepting a bid sent from the participant processor to the auction processor only until a predetermined end of bidding time occurs at the auction processor time clock.

[0149] 29. The method of claim 28, wherein the auction processor sends a message to the participant processor when the end of bidding time occurs at the auction processor time clock.

[0150] 30. The method of claim 28, wherein the participant processor sends a message to the auction processor acknowledging that the end of bidding time has occurred.

[0151] 31. The method of claim 28, wherein the participant processor may be utilized to send a bid to the auction processor until the end of bidding time occurs at the participant processor.

[0152] 32. The method of claim 28, wherein the auction processor transitions to a pending state when the end of bidding time occurs.

[0153] 33. The method of claim 28, wherein the auction processor transitions to a closed state after the end of bidding time occurs.

[0154] 34. A method of verifying that a bid is placed prior to an end of bidding time, comprising:

- ordering messages sent by a networked participant processor;
- receiving an end of bidding message from the participant processor at a networked auction processor; and
- accepting a bid at the auction processor, placed by the participant processor, only if a message containing the bid is ordered prior to the end of bidding message.

[0155] 35. The method of claim 34, wherein said ordering messages includes ordering messages chronologically.

[0156] 36. The method of claim 34, further comprising sending a message from the auction processor to the participant processor requesting that the participant processor return the end of bidding message to the auction processor.

[0157] 37. A system for synchronizing a closing of a network auction, comprising:

an auction processor attached to a network; and

a participant processor attached to said network;

wherein said auction processor contains instructions which, when executed by said processor, cause said processor to:

determine a message travel time between said participant processor and said auction processor;

establish a sponsor auction time;

calculate a bidder auction time by adding the message travel time to the auction processor time;

send a participant processor clock setting to said participant processor; and

accept a bid from said participant processor only if the bid was sent prior to a predetermined end of bidding time.

[0158] 38. The system of claim 37, wherein said auction processor and said participant processor communicate through an auction coordinator.

[0159] 39. The system of claim 37, wherein said auction processor and said participant processor communicate through the Internet.

[0160] 40. A bidding device operated by a bidder during an online auction and coupled to an auction processor via a network, comprising:

a clock; and
a processor coupled to the clock, the processor having instructions that, when executed by the processor set said clock to a bidder auction time.